



AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An electrical control unit for use in a motor driven vehicle,
said electrical control unit comprising:

a communication frame creating unit for creating a first communication frames to be
transmitted on an external communication bus in response to a request;

a storage unit for temporarily storing ~~another~~ second communication frames ~~transmitted~~
received from another a second electrical control unit, the ~~another~~ second communication frames
being subjected to gateway processing by said first-mentioned electrical control unit for
transmission to said external communication bus; and

a transmission mediating unit for ~~alternately~~ transmitting the first and second
communication frames ~~created in the communication frame creating unit and the another~~
~~communication frame stored in the storage unit through an externally connected bus to said~~
external communication bus with transmission priority being assigned alternately to first and
second frames currently ready for transmission.

2. (Currently Amended) ~~The~~ An electrical control unit as in ~~according to~~ claim 1,
wherein the communication frame creating unit sets a code representing an abnormality content
detected by abnormality diagnosis and creates a communication frame corresponding to the
abnormality content.

3. (Currently Amended) ~~The~~ An electrical control unit as in ~~according to~~ claim 2, wherein the electrical control unit controls ~~in-vehicle mount~~ equipment mounted in a vehicle, and the communication frame creating unit sets a signal representing a state of the ~~in-vehicle mount~~ equipment as a message and creates a communication frame corresponding to the message.

4. (Currently Amended) ~~The~~ An electrical control unit as in ~~according to~~ claim 1, wherein the electrical control unit controls ~~in-vehicle mount~~ equipment mounted in a vehicle, and the communication frame creating unit sets a signal representing a state of the ~~in-vehicle mount~~ equipment as a message and creates at least one communication frame corresponding to the message.

5. (Currently Amended) A control system for use in a motor driven vehicle, said system comprising:

a first electrical control unit for ~~responsively~~ creating a first communication frames to be transmitted upon receiving ~~an~~ respectively corresponding external requests and for transmitting the first communication frames through a first bus; and

a second electrical control unit connected to the first electrical control unit through a second bus, wherein the second electrical control unit ~~is for creating a~~ creates second communication frames to be transmitted in response to respectively corresponding the requests from ~~the~~ an exterior unit and also transmitted ~~transmitting the second communication frame~~ through the first bus via said first electrical control unit,

wherein the first electrical control unit includes a transmission mediating unit for ~~alternately transmitting the first and second communication frames to said external~~
communication bus with transmission priority being assigned alternately to first and second
frames currently ready for transmission~~when the first electrical control unit transmits the first~~
~~communication frame on the first bus at approximately a same time as the second electrical~~
~~control unit transmits the second communication frame on the first bus.~~

6. (Currently Amended) ~~The A control system according to~~ as in claim 5, wherein
each of the first and second electrical control units creates the first and second communication
frames based upon ~~the external request, wherein the external requests is received from an~~
~~exterior unit from the first bus.~~

7. (Currently Amended) ~~The A control system according to~~ as in claim 6, wherein
each of the first and second electrical control units transmits a code representing an abnormality
content detected through abnormality diagnosis as a message upon receiving ~~the~~ an external
request for such information.

8. (Currently Amended) ~~The A control system according to any one of~~ as in claim
7, wherein the first and second electrical control units are constructed as ~~an electrical control unit~~
for controlling the driving state of an engine of a vehicle and ~~an electrical control unit for~~
controlling an automatic transmission of the vehicle.

9. (Currently Amended) ~~The A control system according to any one of~~ as in claims
6, wherein the first and second electrical control units are constructed as ~~an electrical control unit~~

for controlling the driving state of an engine of a vehicle and ~~an electrical control unit for~~
controlling an automatic transmission of the vehicle.

10. (Currently Amended) ~~The~~ A control system according to ~~any one of~~ as in claim 5, wherein the first and second electrical control units are constructed as ~~an electrical control unit~~ for controlling the driving state of an engine of a vehicle and ~~an electrical control unit for~~ controlling an automatic transmission of the vehicle.

11. (New) A method for mediating transmission of data frames from two direct bus-connected vehicular electronic control units onto a common bus connected to only one of said electronic control units, requested data being provided from both of said vehicular electronic control units to another vehicular electronic unit over said common bus, said method comprising:

responding to requests for data received on said common bus by generating responsive first and second frames respectively generated by said two directly connected vehicular electronic control units;

buffering said first and second frames of data at the vehicular electronic control unit that is connected to said common bus;

transmitting said first and second frames of data with transmission priority being assigned alternately to first and second frames currently ready for transmission.

12. (New) A method as in claim 11, wherein said another vehicular electronic unit comprises a diagnostic unit which sends requests for state data to said directly connected electronic control units.

13. (New) A method as in claim 12, wherein said directly connected electronic control units respectively control (a) an engine providing motive power to a vehicle and (b) an electrically controlled transmission disposed in a vehicular drive train.